APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,905	08/31/2001	Samuel T. Barone JR.	47015/SAH/M770	3893

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CHRISTIE, PARKER & HALE, LLP
PO BOX 7068
PASADENA, CA 91109-7068

EXAMINER
POLLACK, MELVIN H

ART UNIT	PAPER NUMBER
2145	

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/944,905	BARONE ET AL.
	Examiner	Art Unit	
	Melvin H. Pollack	2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>30 December 2005</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>31 August 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☒ Other: *see attached office action*.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on 30 December 2005 has been entered.

Specification

2.   The title of the invention is not descriptive. A new title is required that is clearly

indicative of the invention to which the claims are directed.

Response to Arguments

3.   Applicant's arguments filed 27 October 2005, and again 30 December 2005, have been

fully considered but they are not persuasive. An analysis of the arguments is provided below. .

4.   Applicant alleges that, in the distributed embodiment of Doucer used by the examiner,

each server only transmits information to a single server that is next in the sequence, rather than

transmitting to more than one server (P. 9, lines 21-24). The distributed environment in Doucer

is actually a hybrid that takes implementations from the centralized method (col. 9, lines 3-21).

To wit, the purpose of the distribution, even to next in sequence, is to provide scheduling

information to all servers (col. 12, lines 10-30) for the purposes of process requests evenly (col.

13, lines 30-50). In this manner, therefore, the first server broadcasts data to the other servers.

5.   Further, this limitation may be fulfilled by broadcast of data to a single other server.

Limitations have not been drawn regarding how many servers are broadcast to, or if the

broadcast must be simultaneous rather than serial.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

7.   Claims 1, 5-8, 10, 15, 17-21, 26, 29, 32, 34, 35, 37, 38 are rejected under 35 U.S.C.

103(a) as being unpatentable over Douceur et al. (6,401,126) in view of Goldszmidt et al.

(6,195,680).

8.   For claims 1, 15, 32, Douceur teaches a system (abstract) for interacting (col. 1, line 1 –

col. 10, line 10) with end user terminals over a first communications network (Fig. 5, #32), the

system comprising:

    a.   A plurality of servers (Fig. 5, #24) coupled to receive communication (col. 1,

lines 25-40) from the end user terminals over the first communications network (Fig. 5,

#32);

    b.   An interface disposed between the plurality of servers and end user terminals

(Fig. 5, #34), the interface being operative to receive requests from the end user terminals

and to distribute the requests to the plurality of servers (col. 1, lines 54-60);

    c.   A second communication network (Fig. 5, #26) coupled to provide

communication between the servers in the plurality of servers (col. 1, lines 60-65);

d.   A first computer program segment (Fig. 5, #62) resident in at least one of the

plurality of servers (col. 3, lines 20-25) wherein said program receives a request from an

end user terminal, processes the request, and broadcasts data regarding the processed

request to the other servers (col. 4, lines 20-40; col. 7, line 65 – col. 8, line 30); and

e.   A second computer program segment resident in at least one of the plurality of

servers wherein the said program stores data broadcast from at least one other server (col.

3, lines 10-25).

9.   Further regarding claim 1, Douceur teaches an improvement on the distributed systems

using thrifty scheduling policies (col. 1, lines 25-27) and that simply adds, rather than changes,

the system drawn in the prior art (col. 10, line 65 – col. 11, line 3). Therefore, the embodiment

described within the prior art is implicitly included in the embodiment described in the detailed

description.

10.   Douceur does not expressly disclose that a server is selected based on a selection

mechanism, the selection mechanism being configured to substantially evenly distribute request

processing burdens amongst the plurality of servers. Goldszmidt teaches a method (abstract) of

load balancing multimedia servers (col. 1, line 1 – col. 3, line 55) via a selection mechanism

(Fig. 1, #1.1; col. 5, lines 20-50). At the time the invention was made, one of ordinary skill in

the art would have added the load balancing techniques of Goldszmidt in order to more properl

balance workload and avoid waste of bandwidth (col. 2, lines 50-52).

11.   For claims 5, 21, 35, Douceur teaches that the end user terminals comprise ITV receivers,

and wherein the requests from the end user terminals are requests from the ITV receivers to

retrieve and transmit interactive content to the ITV receivers (col. 2, lines 3-10).

12.   For claims 6, 29, Douceur teaches a database for permanent storage of the data relating to

processed requests (Fig. 5, #28).

13.   For claim 7, Douceur teaches that the database is coupled to the second communications

network (Fig. 5, #28).

14.   For claims 8, 26, Douceur teaches that the interface disposed between the plurality of

servers and end user terminals further includes means for routing incoming requests to the

respective servers (col. 11, lines 40-50).

15.   For claims 10, 17, Douceur teaches that the routing means comprises a load balancing

system (col. 11, lines 40-50).

16.   For claim 18, Douceur teaches that the load balancing system distributes requests to the

plurality of servers (col. 11, lines 5-10).

17.   For claims 19, 37, Douceur teaches allocating the request uses a round robin allocation to

distribute the load over the plurality of servers (col. 6, lines 50-60).

18.   For claim 20, Douceur teaches forwarding the request further comprises performing a

load analysis to distribute the incoming requests over the plurality of servers (col. 7, lines 30-45).

19.   For claim 34, Douceur teaches that forwarding the request is done in a random manner to

distribute the load over the plurality of servers (col. 6, lines 55-60).

20.   For claim 38, Douceur does not expressly disclose that each server maintains all data

needed for handling a request. Goldszmidt teaches this limitation (col. 7, line 55 – col. 8, line

65). At the time the invention was made, one of ordinary skill in the art would have added this

feature to Douceur to allow for the handling of a failed server via switchover transparent to the

user (col. 8, lines 25-35).

21.   Claims 2, 3, 16, 27, 28, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Douceur and Golszmidt as applied to claims 1, 15, 26, 32 above, and further in view of

Hugenberg et al. (6,714,545).

22.   For claims 2, 27, Douceur and Goldszmidt do not expressly disclose that the first

program segment broadcasts data over the second communication network to the second

program segment. Hugenberg teaches a method (abstract) of providing data services to an array

of end users from an array of servers (col. 1, line 1 – col. 3, line 15) that uses the second

communication segment in the method described above (Fig. 1, #18). At the time the invention

was made, one of ordinary skill in the art would have used the second network as mentioned

above in order to allow for more efficient data striping of Douceur, and also to enable Pay-Per-

View services (col. 2, lines 60-62).

23.   For claim 3, Douceur and Goldszmidt do not expressly disclose that the second

communications network comprises an Ethernet network. Hugenberg teaches this limitation

(col. 4, lines 5-6). At the time the invention was made, one of ordinary skill in the art would

have used an Ethernet network to Douceur and Goldszmidt to accommodate known systems (col.

1, line 48).

24.   For claims 16, 33, Douceur and Goldszmidt do not expressly disclose that transmitting

data is performed over a private network. Hugenberg teaches this limitation (col. 7, lines 23-33).

At the time the invention was made, one of ordinary skill in the art would have added private

networks to Douceur and Goldszmidt in order to provide VDSL features (col. 2, lines 40-65).

25.   Claim 28 is drawn to the limitations in claim 5, as rejected by Douceur. At the time the

invention was made, one of ordinary skill in the art would have combined the teachings for the

reasons provided in the claim 2 discussion above. Therefore, since claims 5 is rejected, claim 28

is also rejected for the reasons above.

26.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Douceur,

Goldszmidt and Hugenberg as applied to claim 3 above, and further in view of Hoguta et al.

(6,725,303).

27.   For claim 4, Douceur, Goldszmidt and Hugenberg do not expressly disclose that the

second communications network comprises a gigabit Ethernet network. Hoguta teaches a

method (abstract) of providing data services (col. 1, line 1 – col. 4, line 45) using a gigabit

Ethernet network (col. 1, lines 20-22).

28.   Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Douceur and

Goldszmidt as applied to claims 1, 8 above, and further in view of Koperda et al. (5,790,806).

29.   For claim 9, Douceur teaches that the routing means comprises the Domain Name Server

function of the Internet. Koperda teaches a method (abstract) of providing a cable data network

for providing information (col. 1, line 1 – col. 3, line 8) in which a DNS function is used for

routing (col. 5, line 50 – col. 6, line 60). At the time the invention was made, one of ordinary

skill in the art would have provided DNS techniques to Douceur in order to build Douceur on

legacy IP addressing systems (col. 6, lines 10-11).

30.   Claims 11, 12, 14, 22-25, 30, 31 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Douceur, Goldszmidt and Hugenberg as applied to claims 1, 2, 15, 26 above,

and further in view of Hoarty (5,883,661).

31.   For claims 11, 22, 30, Douceur, Goldszmidt and Hugenberg do not expressly disclose a

process coupled to the second communications network, wherein the process is programmed to

monitor the network for instances of specific transactions. Hoarty teaches a method (abstract) of

performing interactive television with a plurality of servers and a plurality of clients (col. 1, line

1 – col. 3, line 50) in which the network is monitored for specific transactions (col. 6, lines 5-7).

At the time the invention was made, one of ordinary skill in the art would have added transaction

monitoring to Douceur, Goldszmidt and Hugenberg in order to bolster interactive capabilities

(col. 1, lines 30-35).

32.   For claims 12, 23, 31, Douceur, Goldszmidt and Hugenberg do not expressly disclose

that one of the processes comprises a threshold monitoring process coupled to a content encoder,

wherein the threshold monitoring process is programmed to process data transmitted over the

second communications network, determine that a threshold has been exceeded, and to transmit a

corresponding notification to the content encoder. Hoarty teaches a content encoder (col. 4, lines

35-45) in which a threshold monitoring process coupled to a content encoder (Figs. 1 and 4),

wherein the threshold monitoring process is programmed to process data transmitted over the

second communications network (col. 4, line 50 – col. 5, line 50), determine that a threshold has

been exceeded (col. 6, lines 5-15), and to transmit a corresponding notification to the content

encoder (Figs. 5 and 6). At the time the invention was made, one of ordinary skill in the art

would have added transaction monitoring to Douceur and Hugenberg in order to bolster

interactive capabilities (col. 1, lines 30-35).

33.   For claim 14, Douceur, Goldszmidt and Hugenberg do not expressly disclose that the

process comprises a transaction processing process. Hoarty teaches this limitation (col. 10, lines

33-40). At the time the invention was made, one of ordinary skill in the art would have added

transaction monitoring to Douceur and Hugenberg in order to bolster interactive capabilities (col.

1, lines 30-35).

34.   For claim 24, Douceur, Goldszmidt and Hugenberg do not expressly disclose that

detecting a data threshold comprises detecting a certain number of users. Hoarty teaches this

limitation (col. 5, lines 30-50). At the time the invention was made, one of ordinary skill in the

art would have added this feature to Douceur in order to better partition services (col. 5, line 45).

35.   For claim 25, Douceur, Goldszmidt and Hugenberg do not expressly disclose that

encoding the indication of detecting the threshold comprises placing an indication of detecting

the threshold within a video signal to be provided to an ITV receiver. Hoarty teaches this

limitation (col. 5, lines 30-50). At the time the invention was made, one of ordinary skill in the

art would have added this feature to Douceur in order to better partition services (col. 5, line 45).

36.   Claim 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Douceur,

Goldszmidt, Hugenberg, and Hoarty as applied to claim 12 above, and further in view of Plaza

Fernandez et al. (6,377,992).

37.   For claim 13, Douceur, Hugenberg, and Hoarty do not expressly disclose a frame relay

line connected to the threshold monitoring process and the content encoder to transmit

information there between. Plaza Fernandez teaches a method (abstract) of improving physical

communications (col. 1, line 1 – col. 6, line 5) in which frame relay lines are used in such a

manner (col. 7, line 36). At the time the invention was made, one of ordinary skill in the art

would have added frame relay lines to Douceur in order to combine communications links for

efficiency purposes (col. 3, lines 5-10).

38.   Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Douceur and

Goldzmidt as applied to claim 1 above, and further in view of Yu (6,351,775).

39.   Douceur and Goldszmidt do not expressly disclose that the selection mechanism

randomly selects the one of the plurality of servers. Yu teaches a method (abstract) of providing

load-balancing techniques to content servers (col. 1, line 1 – col. 5, line 20) in which random

assignments may be used (col. 10, lines 54-58). At the time the invention was made, one of

ordinary skill in the art would have added Yu to Douceur and Goldszmidt in order to normalize

load balancing (col. 10, lines 45-50).

Conclusion

40.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. They regard potential double-patenting cases.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Melvin H. Pollack whose telephone number is (571) 272-3887.

The examiner can normally be reached on 8:00-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jason Cardone can be reached on (571) 272-3933. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MHP
23 March 2006

JASON CARDONE
SUPERVISORY PATENT EXAMINER